

AN - 1981-L6272D [45]

CPY - KHAV

DC - S01

FS - EPI

IC - G01R23/00

IN - CHUMACHENK A A; FALKOVICH S E; SHULGIN V I

MC - S01-D03C

PA - (KHAV) KHARK AVIATION INST

PN - SU798614 B 19810125 DW198145 003pp

PR - SU19782633571 19780614

XIC - G01R-023/00

AB - SU-798614 The system determines the power spectrum of band limited signals and may be used to analyse the power spectrum of radar echoes etc, with increased speed. The signal to be analysed is fed to a zero crossing detector which generates narrow pulses to strobe a memory unit, which has N pairs of digital outputs and generates a word at each output. Each pair of words is equivalent to $\sin W_k RT$ and $\cos W_k RT$, where W_k is the kth angular frequency of N equally spaced discrete frequencies within the measured band T is the running time at output of Rth pulse.

- These words are added to the contents of corresp. accumulators and top of word stacks. The bottom words of these stacks are removed and subtracted from the accumulator contents each time a new word is received. The accumulator contents represent the current amplitude spectrum of the signal.

- A 2N input squaring unit determines the square of the modulus corresp. to each pair of accumulator outputs, with N outputs to represent the signal power spectrum and the max. output identifies the main signal frequency. Bul.3/23.1.81 (3pp)

IW - SIGNAL POWER DENSITY FREQUENCY MEASURE SAMPLE SIGNAL N DISCRETE FREQUENCY RATE EQUAL SIGNAL FREQUENCY

IKW - SIGNAL POWER DENSITY FREQUENCY MEASURE SAMPLE SIGNAL N DISCRETE FREQUENCY RATE EQUAL SIGNAL FREQUENCY

INW - CHUMACHENK A A; FALKOVICH S E; SHULGIN V I

NC - 001

OPD - 1978-06-14

ORD - 1981-01-25

PAW - (KHAV) KHARK AVIATION INST

TI - Signal power density and frequency measurement - samples signals of N discrete frequencies at rate equal to signal frequency

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